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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/744,000	12/24/2003	Sameh Rabie	16201ROUS01U	9424
626 7590 08/24/2007 NORTEL NETWORKS LIMITED 3500 CARLING AVENUE OTTAWA, ON K2H 8E9 CANADA			EXAMINER WASEL, MOHAMED A	
			ART UNIT 2154	PAPER NUMBER
			MAIL DATE 08/24/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/744,000

Applicant(s)

RABIE ET AL.

Examiner

Mohamed Wasel

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 24 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-40 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

This action is responsive to application filed on December 24, 2003. Claims 1-40 are presented for examination.

#### Claim Objections

Claims 2-19 are objected to because of the following informalities: "**A method** as claimed..." needs to be changed to "**The method** as claimed...". Appropriate correction is required.

Claims 21-40 are objected to because of the following informalities: "**A system** as claimed..." needs to be changed to "**The system** as claimed...". Appropriate correction is required.

A series of singular dependent claims is permissible in which a dependent claim refers to a preceding claim which, in turn, refers to another preceding claim.

A claim which depends from a dependent claim should not be separated by any claim which does not also depend from said dependent claim. It should be kept in mind that a dependent claim may refer to any preceding independent claim. In general, applicant's sequence will not be changed. See MPEP § 608.01(n). Regarding claims 21, 22, 25, 28-30 and 33, these claims cannot depend on themselves. They must refer to other preceding claims. Appropriate corrections are required.

Claim 14 is objected to because of the following informalities: "**theFR...**" needs to be changed to "**the FR...**". Appropriate correction is required.

#### Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishwar et al, (Ishwar) US Patent Application Pub. No. 2004/0078469 in view of Haddock et al, (Haddock) US Patent Application Pub. No. 2004/0081093.

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1. As per claim 1, Ishwar teaches a method for enabling multiple QoS support over Frame Relay (FR) and Ethernet networks (**Paragraph(s) [0030]**) comprising:

Identifying a packet according to a first network protocol for servicing (**Paragraph(s) [0029]**) and determining QoS (**Paragraph(s) [0004]**).

Ishwar fails to explicitly teach determining a QoS metric for the identified packet and based upon the determined QoS metric, servicing the identified packet for transmission in accordance with a second network protocol.

However, Haddock discloses determining a QoS metric for the identified packet and based upon the determined QoS metric, servicing the identified packet for transmission in accordance with a second network protocol (**Paragraph(s) [0010], [0022], Abstract**).

Therefore, it would have been obvious to one of the ordinary skill in the art at the time of the applicants' invention to combine the teachings of Ishwar and Haddock because it provides an efficient transmission method of exchanging data over multiple networks with respect to network protocols.

2. As per claim 2, Ishwar fails to explicitly teach determining a QoS metric includes considering Ethernet information.

However, Haddock discloses determining a QoS metric includes considering Ethernet information (**Paragraph(s) [0013]**).

Therefore, it would have been obvious to one of the ordinary skill in the art at the time of the applicants' invention to combine the teachings of Ishwar and Haddock because it provides an efficient way of analyzing packets to identify destination/client and apply the proper QoS.

3. As per claim 3, Ishwar teaches a method wherein the Ethernet information includes Ethernet port information (**Paragraph(s) [0014]**).

4. As per claim 4, Ishwar teaches a method wherein the Ethernet information includes virtual local area network identifier (VLAN ID) information (**Paragraph(s) [0029-0031]**).

5. As per claim 5, Ishwar teaches a method wherein the Ethernet information includes p-bits information (**Paragraph(s) [0029]**).

6. As per claim 6, Ishwar teaches a method as claimed in claim 5 wherein the Ethernet information further includes VLAN ID information (**Paragraph(s) [0029-0031]**).

7. As per claim 7, Ishwar fails to explicitly teach wherein the step of servicing further includes assigning drop precedence to the packet based on the p-bits information.

However, Haddock discloses wherein the step of servicing further includes assigning drop precedence to the packet based on the p-bits information (**Paragraph(s) [0043], [0061]**).

Therefore, it would have been obvious to one of the ordinary skill in the art at the time of the applicants' invention to combine the teachings of Ishwar and Haddock because it provides better network performance and insure QoS's are applied to various traffic classes based on a client subscription.

8. As per claim 8, Ishwar fails to explicitly teach a method wherein the step of determining a QoS metric includes considering Upper Layer Protocol (ULP) information.

However, Haddock discloses a method wherein the step of determining a QoS metric includes considering Upper Layer Protocol (ULP) information (**Paragraph(s) [0041]**).

Therefore, it would have been obvious to one of the ordinary skill in the art at the time of the applicants' invention to combine the teachings of Ishwar and Haddock because it allows different layers to add features/functionality to data sent over a data link layer protocol by supporting encapsulation.

9. As per claim 9, Ishwar teaches a method wherein the ULP information includes Internet Protocol (IP) packet information (**Paragraph(s) [0028]**).

10. As per claim 10, Ishwar fails to explicitly teach a method wherein the IP packet information includes Differentiated Services Code Point (DSCP) bit information.

However, Haddock discloses a method wherein the IP packet information includes Differentiated Services Code Point (DSCP) bit information (**Paragraph(s) [0035]**).

Therefore, it would have been obvious to one of the ordinary skill in the art at the time of the applicants' invention to combine the teachings of Ishwar and Haddock because it provides an efficient way of classifying different data packets by using DSCP field in the header of an IP packet.

11. As per claim 11, Ishwar teaches a method wherein the IP packet information further includes VLAN ID information (Paragraph(s) [0003], [0028]).

12. As per claim 12, Ishwar fails to explicitly teach a method wherein the step of servicing further includes assigning drop precedence to the packet the based on the DSCP bit information.

However, Haddock discloses a method wherein the step of servicing further includes assigning drop precedence to the packet the based on the DSCP bit information (Paragraph(s) [0035], [0043], [0061]).

Therefore, it would have been obvious to one of the ordinary skill in the art at the time of the applicants' invention to combine the teachings of Ishwar and Haddock because it provides a better way of prioritizing network traffic based on client subscription.

13. As per claim 13, Ishwar teaches a method wherein the first network protocol is FR, the second network protocol is Ethernet, and the step of determining a QoS metric includes considering FR information (Paragraph(s) [0029-0030]).

14. As per claim 14, Ishwar teaches a method wherein the FR information includes data link connection information (Paragraph(s) [0030]).

15. As per claim 15, Ishwar fails to explicitly teach a method wherein the step of servicing further includes assigning drop precedence to the packet based on discard eligible (DE) bit information.

However, Haddock discloses a method wherein the step of servicing further includes assigning drop precedence to the packet based on discard eligible (DE) bit information (Paragraph(s) [0043]).

Therefore, it would have been obvious to one of the ordinary skill in the art at the time of the applicants' invention to combine the teachings of Ishwar and Haddock because it provides a better way of prioritizing network traffic based on client subscription.

16. As per claim 16, Ishwar fails to explicitly teach a method wherein the first network protocol is Ethernet and the second network protocol is FR and the step of servicing includes mapping the packet to a DLC and scheduling the packet for transmission according to a sub-connection scheduling scheme.

However, Haddock discloses a method wherein the first network protocol is Ethernet and the second network protocol is FR and the step of servicing includes mapping the packet to a DLC and

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scheduling the packet for transmission according to a sub-connection scheduling scheme (**Paragraph(s) [0022], Abstract**).

Therefore, it would have been obvious to one of the ordinary skill in the art at the time of the applicants' invention to combine the teachings of Ishwar and Haddock because it provides an efficient mechanism of routing network traffic.

17. Claim 17 is rejected under the same rationale as claim 16.

18. As per claim 18, Ishwar fails to explicitly teach a method wherein the first network protocol is FR and the second network protocol is Ethernet and the step of servicing includes mapping the packet to an Ethernet port and scheduling the packet for transmission according to a class scheduling scheme.

However, Haddock discloses a method wherein the first network protocol is FR and the second network protocol is Ethernet and the step of servicing includes mapping the packet to an Ethernet port and scheduling the packet for transmission according to a class scheduling scheme (**Paragraph(s) [0022], Abstract**).

Therefore, it would have been obvious to one of the ordinary skill in the art at the time of the applicants' invention to combine the teachings of Ishwar and Haddock because it provides a better way of prioritizing network traffic based on client subscription.

19. Claim 19 is rejected under the same rationale as claim 18.

20. The set of claims 20-38 are rejected under the same rationale as the set of claims 1-19.

21. As per claim 39, Ishwar teaches a system wherein the system is located at an edge of a core network (**Paragraph(s) [0030]**).

22. As per claim 40, Ishwar teaches a system wherein the system is located in a user element (**Paragraph(s) [0030]**).

### **Conclusion**

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Please refer to form PTO-892 (Notice of Reference Cited) for a list of relevant prior art.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mohamed Wasel whose telephone number is (571) 272-2669. The examiner can normally be reached on Mon-Fri (8:00 am - 5:30 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan Flynn can be reached on (571) 272-1915. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MW  
August 18, 2007

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